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ABSTRACT

A rationale and plan are presented for implementing a futures approach in many areas of community college activities. After the introduction, the paper cites several characteristics of the community college and its mission which mandate planned experimentation and innovation. Next, the relationship of future studies to the educational system as a whole is examined by: (1) defining futures studies; (2) presenting reasons for studying the future; (3) looking at future studies activities by researchers, theoreticians, and business representatives; (4) comparing the purposes and uses of conventional science and futures research; (5) reviewing current futures studies activities at educational institutions; and (6) assessing the value of futures studies to the individual. The next section explores futures studies in the community college in terms of the rationale for future studies programs, the structural relationships of future studies to the community college constituency, student and academic program considerations, and degree plans with a future studies orientation. Course descriptions are provided for credit and non-credit futures courses, and instructional staff development is discussed. Additionally, this section covers non-instructional uses of futures studies in the areas of forecasting and developing institutional strategies to cope with change and of community college funding. Concluding remarks reveal the ultimate goal of future studies as the ability to control evolution itself, i.e., "The God Factor." (KL)

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FUTURE STUDIES

*** THE GOD FACTOR ***

OF THE

COMMUNITY COLLEGE ECOLOGICAL SYSTEM

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DECEMBER 1, 1980

IN BRIEF

The God Factor is the transformation from centralized responsibility for the control of evolution to decentralized acceptance of social responsibility for the technological capability to control evolution.

It is important that all levels of education, particularly the community college sector, become involved in Future Studies. It is Future Studies as an appropriate technology discipline that accounts for the God Factor.

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FUTURE STUDIES

*** THE GOD FACTOR ***

OF THE

COMMUNITY COLLEGE ECOLOGICAL SYSTEM

Introduction

"Without forecasting there is effectively
no freedom of decision."

Bertrand de Jouvenel

From the present historical perspective of centuries past, it appears that mankind always felt that man himself, as visionary, healer, artist, philosopher, leader, scientist, politician, explorer, engineer or strategist, was the principal activator in the dynamics of historical events that shaped the course of human interaction and resulted in a slow process of societal change. Heroes were honored, governments formed, disease checked and economic systems developed. Mankind knew no bounds as it placed its giant step on the Moon. Educational systems were formed to insure and develop those values and skills that had nurtured the human embryo to pre-historic birth and explosive adult maturity possessing the ability to change and accelerate the process of evolution itself.

As Cornish, et al, (1977) asserts, "change, in short, is a process that feeds on itself. Each change leads to more changes." To the extent

that change becomes a function of technology or economics, or both, the results of change, as perceived by this writer, seem to become more predictable in a context of alternative futures. "With our ability to modify the process of natural change itself, and our propensity to do so, the human race is now experiencing the most rapid change in its history," (Cornish, et al, 1977). This is a phenomena with no known historical precendent; traditional analytical and problem-solving tools do not necessarily apply, or apply with a limited perspective. In essence, the human culture is confronting its own future and the individual members of the organism need to account for another dimension of their basic survival.

The prediction of the future is not too complex at this point. . .

> WE WILL ALL BE PRISONERS OF THE FUTURE. . .
> WHEN IT BECOMES THE PRESENT. . .AND THIS WILL
> OCCUR BY OUR OWN ACTION OR INACTION. . .TODAY.

However, the forecast of alternatives for the future gives us something to choose from. . .

namely,

1. In living only in the past, we may isolate ourselves from the mainstream of reality as it occurs today.

2. In living only in the present, we may grow insensitive to the needs of others and isolate ourselves from what has been and what might be, as we serve ourselves today.

3. In living only in the future, our anxiety may know no bounds and we may lose our ability to relate to the reality around us.

4. In living in the past and present, we may have a glimpse of our failure in the human endeavor as we serve ourselves the fruits of our labor. It is probable that with this approach we will become discouraged and compromise with conditions as they are.

5. In integrating the past, present and the future, we may integrate the responsibility for the fruits of our labor in a way that is commensurate with our ability to influence the course of events in a domestic, local, national and global sense; and in a way commensurate with our individual and collective ability to affect the process of evolution. Thus, in this integrative sense, we may be able to reinforce the present with our experience of the past, and know that we share responsibility for the future with generations to come.

Forecasts are for decision-making, and the decision belongs to each of us. . .individually and in a collective reflection.

Premises of the Community College

Edmund Gleazer, Jr., Executive Director of the American Association of Community and Junior Colleges has asserted, (Gleazer, 1980). . ."that what is needed in this system, is institutional capability to determine what is appropriate and needed in given circumstances. And for this capability, we must look to qualities of institutional 'being.' The requisite elements in a community college capable of formulating its mission occur with pronounced frequency in community colleges usually judged to be superior." These qualities are--

1. The college is adaptable. It is capable of change in response to new conditions and demands, or circumstances.

2. The college operates with a continuing awareness of its community.

3. The college extends opportunity to the "unserved."

4. The college has continuing relationships with the learner.

5. The college accommodates to diversity.

6. The college has a nexus function in the community's learning system.

Summarizing, Gleazer (1980) emphasizes that the mission of community colleges should be stated as--

> To encourage and facilitate lifelong learning, with community as process and product.

Organized as "Islands of Innovation" (Vaughan, 1979) in the 1960's and 1970's, the community colleges of the United States actually operate under a sometimes tacit set of missions that are reflected as follows--

1. The provision of a variety of two-year college parallel programs for those who wish to transfer to universities.

2. The provision of a variety of one year and two year occupational programs for those who wish to enter employment upon graduation.

3. The provision of a variety of continuing education opportunities for those who wish to pursue areas of personal interest and those who desire to upgrade themselves in present occupations.

(COM Prospectus, 1981)

These missions, because of impending resource limitations are occasionally refined in the form of administrative and resource allocation priorities. Example priorities (COM Board of Trustees, 1980) are expressed as follows--

Priority 1	Credit Programs: Academic and Technical-Vocational
Priority 2	Continuing Education for occupational upgrading: Short-term preparatory through longer-term training programs
Priority 3	Remedial, developmental education
Priority 4	Avocational Continuing Education for personal use
Priority 5	Community services

All missions and priorities usually have as a general condition the address of "Educational Need" which can be defined, in part, as follows--(COM Prospectus, 1981)

1. To assist the student to increase his self-command and to aggressively take charge of his own life program.
2. To assist the student to increase his ability to relate responsibly his own purposes and actions, both technically and morally, to the purposes and actions of all his neighbors, both local and distant.
3. To assist the student to view his occupational interests in their larger social context.
4. To assist the student in increasing his understanding of his local and larger natural environments.
5. To assist the student in studying and comparing conflicting positions on the basic and persistent problems of human existence.

In a joint statement by the Texas Junior College Teachers Association, the Texas Association of College Teachers, and the Texas Conference, American Association of University Professors, presented to the Coordinating Board of the Texas College and University System (TJCTA MESSENGER, September-October, 1980), the three organizations emphasized (among other points) that the following be considered in the development of a long-range plan for higher education in the State of Texas--

1. That a balance between general and vocational education be assured on the basis that graduates be prepared not only to make a living but also to perform better as marriage partners, parents, transmitters of cultural heritage and citizens of local, state and national democracies.

2. That the varied skills of faculty members in higher education in Texas constitute an underutilized resource which could be employed productively in public and community organizations. The skills of these faculty members should be available, and these organizations encouraged to draw upon them.

In the pursuit of the types of Missions, Priorities and Educational Needs defined in the role of the community college (COM Prospectus, 1980) and amplified by the higher education teacher organizations in Texas (TJCTA MESSENGER, September-October, 1980), experimentation and innovation, carried out on a planned and deliberate basis, are mandates (COM Prospectus, 1981) and a demonstration of intellectual and technical leadership (Faculty Association of College of the Mainland, 1980).

Relationship of Future Studies to the Educational System At-Large

Future Studies Definition

In its simplest form, Future Studies may be defined from three perspectives--

1. It is an intellectual activity for influencing the future.
2. It is a way of looking at one's career or interest field.
3. It is a career or interest field within itself.

Educationally speaking, Future Studies is a curriculum concept of interdependence.

Within these perspectives, five premises govern the inteliectual endeavor. It is important to note that Future Research and Future Studies are value meaning endeavors; and that planning, as an activity that follows Future Research and Future Studies, and is in turn followed by execution, is value laden and as such, is a matter of individual or collective identity. The five premises of Future Studies are--

1. There are alternative futures that are created by actions in the present. Only one of these futures will occur at any time. An apparently simultaneous multiplicity of events may either co-occur or sequentially occur in (one?) reality.
2. It is unknowable which future will occur for certain.
3. Forecasting of future conditions is for decision-making purposes and for esthetic purposes.

4. To the extent that a futures forecast may cause a change in the present activities that can affect the outcome of those activities, it is not possible to determine if a forecast is right or wrong because the ultimate outcome is based upon freedom of choice.

5. "High" morality depends upon accurate forecasting.

Consolidating the foregoing information for a succinct definition of Future Studies we have--

from the teacher's perspective. . .

> Future Studies is the organization and presentation of the results of Futures Research for the purpose of illustrating potential futures that are relevant to the lives of the participating community membership.

from the student's perspective. . .

> Future Studies is learning to evaluate, and the evaluation of possible consequences of potential future conditions, using the criteria of (1) plausibility, (2) specified time frames, (3) internal consistency, (4) clearly articulated assumptions, (5) realism, (6) imagination and (7) justification.

Future Studies, by its nature, is both interdisciplinary and transdisciplinary with the concept of interdependence of paramount importance. It may not be enough to merely illustrate issues within narrow academic specialties, rather, it may now be necessary to "Think Globally and Act Locally" and "Think Locally and Act Globally" for a culturally synergistic effect.

Why Study the Future?

Critics of the Future Studies movement are apt to declare that our view of the future is intrinsically limited and therefore we are not competent to judge it. Supporting their claim with historical trend analyses and philosophy they confront the Futures Researchers who, armed with socio-economic research, resources depletion research and philosophy, explain that we are approaching the ecological niche of Earth and its communities. Consequently, the real physical and social limits to our present way of life necessitate changes or their consideration. That the truth lies somewhere between, and where it lies in the spectrum, is a matter of individual relevance and interpretation. . . worthy of investigation and analysis in a "safe environment". . . the community college.

As declared by Cornish, et al, (1977), "we know for certain only that a hurricane of change is sweeping through all human institutions, upsetting, destroying and creating more in a generation than was accomplished during centuries of time past. No known force can stop this pervasive metamorphosis and generations may pass before the powerful social and technological processes now at work are controlled or dissipated. While it is possible that the rapid changes of contemporary times may be only temporary, the phenomena, as temporary, may continue for decades, centuries or even millenia." The fact remains, we are with an incomplete historical precedent,

excepting the concept of macroevolution which, only now under heavy debate by scientists, accounts for the evolution of major differences. The only reliable tools that we possess are our intellects and wills. How we employ these tools in the mobilization of our technological artifacts will be the recorded historical precedent on which the future rests.

On a more practical basis (Kepner, 1979) it is reported that secondary school students in Patterson, New Jersey were asked to determine which subject matter areas they thought to be important content areas. The survey revealed that out of 20 potential and traditional academic subjects tested, "the future" was judged to be the most important subject for students to study. With a "most important" rating of 75 percent by intermediate students and 77 percent by high school students, "the future" scored higher than any other subject.

Future Studies Activity

Two major schools of thought dominate the Future Studies arena. Ferkis (1977) documents the "Cornucopian," synonymous with Positive Extrapolationist thinking, as the school of thought that is essentially technological in its outlook and historical in its methodology. Ferkiss (1977) also documents the "Catastrophist," synonymous with Negative Extrapolationist thinking, as the school of thought that is essentially environmental and humanitarian in its outlook and pattern oriented in its methodology. The two camps agree upon the essentials of the problems of (1) pollution, (2) population, (3) food supply

and (4) energy consumption. Yet each seems prepared to defend its solutions in a global struggle to the death. Entering the scenario at this point are the Transformationists, an invisible group of policy-makers, system designers, educators, citizens, et al, who adapt the competing perspectives to reinforce their image of the future. The Transformationists are concerned with how we get from "here to there." Transformationists, because of their understanding of future contingencies are literally engaged in "designing the future" in which we will live. They are found in the infrastructure of the society.

This activity has generated, since 1950, a wealth of literature and research data. Ferkiss (1977) has documented the impact of the Future Studies movement in the federal government. This impact ranges from military and intelligence applications to the legislation requiring each of the standing subject-matter committees of the House of Representatives to have a Futures Research capability enabling them to, in effect, assess the long-range impact of proposed legislation.

Corporate interest and sponsorship in the futures sector, while in its infancy, is closely related to planning processes (Traub, 1979) and ranges from studies of solar energy, studies of vulnerability to terrorism and forecasts such as "the use of dental floss may increase from 15 percent to 25 percent for even low-income adults." Nothing that is human is alien for the person familiar with Future Studies philosophy and methodology when it comes to corporate possibilities. This suggests an expanding role for

Future Studies with those in positions of corporate responsibility who will translate social and economic trends into plans and subsequently translate corporate plans and objectives into operating realities. Enhanced skills in forecasting, interpretation, planning, decision-making, generating group consensus, organizing, management, engineering and human relations. . . all with a futures orientation appear to be the hallmark of the employee of the future. . .an informed employee who understands the perspectives of social responsibility in a future context. What is needed is more corporate experience with the positive impact of Future Studies educated personnel on profits, productivity and social responsibility.

Corporate leadership in the futures sector is exemplified by Robert Anderson, chairman of Atlantic Richfield Company, with his support of the Aspen Institute for Humanistic Studies and the Worldwatch Institute in Washington which monitors global environmental futures (Crittenden, 1980). His futures oriented philosophy was recently mirrored by the president of ARCO, Horace Edwards, who challenged industry to provide both money and civic leadership in addressing the future problems of the 1980's with new perceptions, images and entreprenurial spirit, so that industry can be in touch with the realities of the community in which it operates (Herman, 1980).

It occurs to this author that a futures orientation, and the insight and skill that accrues thereto, is a quality that each person can translate into his personal life as he integrates with his family, community and employer.

Future Studies, in its present state and its expected development, may offer the best potential for the development of the Modern Rennaissance Man (and Woman), and a new age of Post-Industrialism. Certainly this potential has the greatest possibility for realization if Future Studies is integrated with professional, technical, scientific and humanistic competencies.

Conventional Science and Futures Research Compared

Questions certain to confront the proposers of Future Studies for educational system of interest are: How does Futures Research differ from conventional Scientific Research? Is there a different thought process involved?

Basically, there are two purposes of Futures Research--

1. To create, by describing or giving dimension to, possible futures.
2. To cause adaptation to probable futures.

Within this context, there are four predominant uses of Futures Research--

1. The forecasting of trends and conditions.
2. The assessment of impacts stemming from envisioned trends and conditions.
3. The identification of needs and strategies for personal integration or rejection of conditions.
4. The exploration of basic values and the conceptual premises associated with particular trends and conditions.

Given the purpose and use of Futures Research, it is contrasted with conventional Scientific Research in the following ways--

FUTURES RESEARCH	SCIENTIFIC RESEARCH
1. Based on conjecture.	1. Based on prediction.
2. Based on what may happen.	2. Based on what has happened.
3. Based on "State Specific" methods.	3. Based on general methods.
4. Based on "artificial" systems.	4. Based on "natural" systems.
5. Is Ideographic (many views) of reality and its phenomena.	5. Is Nomothetic (one view) of reality and its phenomena.

SOURCE: Dr. O. W. Markley
University of Houston
at Clear Lake City

Given the differential basis that separates Futures Research, hence Future Studies, from conventional Scientific Research, hence traditional study disciplines, one might choose to debate the merits of the Futures field in emerging as a discipline within itself. The alternative is the integration of "futurization" into academic specialties based upon conventional scientific methods or discipline value systems. On the surface, Futures Research seems to be the "stuff" from which the hypothesis is generated that serves Scientific Research. Yet, as the system under consideration becomes more global or interactive in nature there seems to be sufficient justification to allow Futures Research to emerge, in a coupled sense or "partnership," with scientific methodologies in the educational application of Future Studies.

Certainly we must acknowledge that much contemporary Futures Research either is, or becomes a matter of policy or practice, i.e., environmental impact statements, military planning, budgeting practices, etc., and much scientific and historical perspective as well as wisdom of the past has fallen, and will fall, to the research of the Reconstructionist and his penmanship sword. Fundamentally, it must be ascertained, in the mind, that for the difference to exist between Scientific Research and Futures Research there must be a difference. If there is no difference between the two, then what value system is to be applied? Where is the freedom of choice? How will we learn social responsibility? Most important, who will deny the children this thought process? Why?

Present Future Studies Activities in Educational Institutions

As of 1979, with the publication of "THE FUTURE: A Guide to Information Sources" by the World Future Society it was obvious that Future Studies activities were concentrated at the university level, followed by junior high school and high school participation. The community college, those "Islands of Innovation," reflected not quite 5 percent of the total effort at confronting the future (Chart 1). It is also obvious from the cited publication that Future Studies represents a very small effort in the perspective of the total educational effort.

While it is not the purpose of this paper to draw any conclusions about the particular Future Studies endeavors reflected in Chart 1,

Source: THE FUTURE: A Guide To Information Sources, 1979

FUTURE STUDIES ENDEAVORS*

I. United States Educational System

ORIENTATION

COMMUNITY COLLEGE

OR

UNIVERSITY		1st 2 YEARS UNIVERSITY		HIGH SCHOOLS		Junior High Schools	
Program	Courses	Program	Courses	Program	Courses	Program	Courses
36	102	1	44	- 0 -	55	- 0 -	11
Continuing Education 25		Continuing Education 9					

Total Colleges and Universities Included . . . 156

Total Community Colleges Involved . . . 11

Total High Schools and Junior High Schools Involved . . . 66

II. Foreign Educational Systems

ORIENTATION

UNIVERSITY		SECONDARY SCHOOLS	
Program	Courses	Program	Courses
5	11	- 0 -	2
Continuing Education 1			

*Future Studies Endeavors is defined as (1) 1 or more courses offered for a particular category of student, or (2) a programs orientation that leads to recognition of a Future Studies orientation as defined by the submitting institution. Total endeavors exceed total institutions involved in Future Studies.

those institutions and individuals who have placed a priority on the relevance of the future in their educational and community service design are applauded.

What Will Somebody Do If He Studies the Future

Fortunate or unfortunate as the case may be, there is a value for the utility of most endeavors. A case can be made for the societal value of Futures Research and Future Studies as a "freestanding discipline." As such, it is academic in nature and consultative in application. It becomes the "choice," in essence the "social conscience" of its scientific or technological partner. The case can also be made for the integration of Futures Research and Future Studies into the scientific and technological disciplines. In this case, such an integration must contend with the value system of the scientific and technological imperatives and consequently is called "Futurization." In the opinion of this writer, the most value of the Future Studies concept comes from the academic orientation that is integrated with the principles of management and technology, all intimately associated but exercised in freedom of choice. It is in this capacity that the consultative or teaching role, with student or organization, is best fulfilled in terms of the concept of "appropriate technology." It is from this perspective that the thrust of the technological or scientific imperative value system can be directed to serve the personal or cultural integrity of mankind.

The omni-presence of technological and scientific artifacts serve as reminders that it is no longer an academic question, between the "Cornucopians" and the "Catastrophists," of should we or should we not take the high road of scientific and technological development. The fact is, we did. Now the question is essentially transformational. . .how can we appropriately use technology (in its broadest concept) to deal with technology and science?

To do it effectively requires an intimacy, not of marriage, but of respect. An intimacy with technology or science that is integrated into an understanding of the dynamics of social organization and its implications for associated life.

At the risk of making a two-dimensional representation of an essentially multi-dimensional quality, Chart 2 is an incomplete illustration of the potential applications of a Future Studies orientation to occupational competencies. If it is important to consider employability as a function of a Future Studies orientation, then we can safely state that a Future Studies orientation will make an individual no less employable and may even enhance his employability from the perspective of an employer reviewing competitive applicants. In the final analysis, each person will have to secure his own employment of interest. There are many strategies for this as placement offices and personal planning courses tell us.

Employment for pay is not the only concern, for there are many community service functions that may be served with a futures orientation.

An Incomplete List

THE INTEGRATIVE NATURE OF A FUTURE STUDIES ORIENTATION

Avocational Application	Academic Qualifications As A Function of Future Studies Orientation	Occupational Area	Occupational Application	
Participate in Personal Interest and/Or Community Activities As An Informed and Sensitive Citizen.	Professional Specialty Degree	1. Government 2. Education 3. Business/Industry 4. Personal Services	1. Futures Research 2. Scientific Research 3. Instructional Design 4. Teaching 5. Specialty Applications 6. Writing	Each Ascending Step Incorporates The Ability Of The Preceeding Step
	Graduate Degree	1. Government 2. Education 3. Business/Industry 4. Personal Services	1. Forecasting 2. Issue Analysis 3. Group Methods 4. Instructional Design 5. Teach 6. Goal Development 7. Planning 8. Management 9. Community Research	
	Baccalaureate Degree	1. Government 2. Education 3. Business/Industry 4. Personal Services	1. Focus on Applications of Appropriate Technology in Specialty Area. 2. Develop Objectives 3. Participate as Informed Citizen/Employee. 4. Supervision	
	AAS/AA	1. Government 2. Education 3. Business/Industry 4. Personal Services	1. Evaluates Future Alternatives 2. Translates Future Objectives Into Daily Realities. 3. Has concepts of Appropriate Technology	
	High School Graduate	1. Government 2. Education 3. Business/Industry 4. Personal Services	Has an Awareness That The Individual is a Part of and can influence the Future	

Chart 2

The important consideration is that everyone makes what he will of the postion he secures.

Let it be emphasized that this author perceives that as a minimum condition resulting from this concept of Future Studies, the student participants will develop a personal perspective and philosophy regarding the concept and application of appropriate technology. To the extent that he then carries those intellectual skills into his professional and occupational endeavors we may see a societal impact for which the alternative exists in revolutionary proportions.

FUTURE STUDIES IN THE COMMUNITY COLLEGE ENVIRONMENT

Rationale

In the community college, the Future Studies program is designed to develop an awareness of the interdependence of sociological, political, economic, technological and environmental factors that are integral to the stresses that a community, in its many concepts, experiences. It is the role of the community college to (1) teach, (2) coordinate and (3) disseminate the current thinking and methodologies of the Futures Research field to its constituency in such a way that the constituency is prepared to evaluate the relevance of this thinking to its own community life style and value its own activities accordingly. It is also the role of Future Studies in the community college to (1) generate appropriate community research, within the limits of its priorities and resources, (2) to assist its constituency in evaluating its potential future and (3) assist its constituency in employing democratic

decision-making processes. The Future Studies faculty also serves as an internal consultant to the institution, assisting in the development of staff, program and institutional planning.

Structural Relationships of Future Studies to the Community College Constituency

Inasmuch as teaching is the first priority of the Future Studies program, a complement of academic credit courses and Continuing Education courses describes the basic activity of the Future Studies faculty. The second priority of Future Studies serves the institution in the role of an internal consultant on matters of program and staff development and institutional planning. The third priority and external function of the Future Studies program involves the development and coordination of activities of a "Community Futures Committee" which may function in an advisory capacity by recommending community research projects. . . the results of which are integrated into the Continuing Education component, and in cooperation with other Continuing Education developmental programs. To establish a Futures orientation within the community college ecological system, it appears that a communications network, facilitating both feedback and feedforward communications, must form. This network will be both internal and external to the institution, effectively dropping the perimeter barriers between the institution and an all inclusive concept of cultural transmission centers while maintaining cultural

heritage and characteristics. Such a network ultimately has implications for the structural design of instructional delivery, but in general it will be characterized by a technologically supported version of methods and processes in use. In time, the structure will be characterized by technologies not yet fully known.

Student Considerations

It is highly desirable that a complement of financially rewarding scholarships be available for students entering the Future Studies program. Building upon the concept, a public acknowledgement of excellent performance. . . a "Leadership of the Future Award". . .should be available to the top students who exit the program. Student activities and organizations, functioning to build an awareness of the Future Studies concept, should foster enthusiasm and interest.

Academic Program Considerations

According to the analysis of Christakis (1978), it is important that education explain the world as it is. However, it is at least equally important that education explain the world as it will be affected by emerging value bases and technologies. In acknowledging that perception of a societal problem depends heavily on the particular point of view adopted, and that different people can and will perceive the same societal situation in significantly different ways, Christakis (1978) suggests that the challenging role of

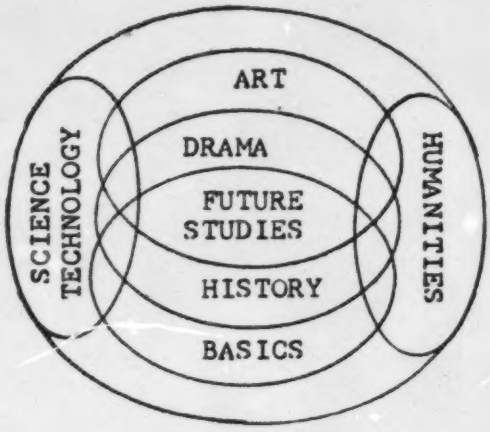
contemporary education is to explicate, communicate and assess these disparate perceptions of reality so there is widespread citizen participation in the "design of the future."

Christakis (1978), has identified a system of inquiry which consists of (1) the development of a conception of what one expects to discover, (2) using that conception to guide one in feeling, selecting and assigning meaning to facts and (3) continually developing new, more adequate conceptions as the discovery and interpretation of facts proceeds. This method of inquiry roughly corresponds to the systematic process of identifying assumptions, testing assumptions, discovering consistency or inconsistency and continuing or revising behavior with the freedom of decision to do so. In essence, the student will learn about the future in a way that is similar to how he/she now learns about the present or past.

Future Studies, as an integrative curriculum in the community college environment, focuses on the development of an individual's personal identity with the future in an interdisciplinary, or futures-creative context. The two principle schools of Futurist thought (1) Cornucopian and (2) Catastrophist are thoroughly investigated and tempered with an interdisciplinary study of the principles of social organizations in growth and decline phases. Rounding out the macro-future orientation of Future Studies in the community college is an extended discussion of the Future of Energy in its broadest context. The Future Studies endeavor includes an in-depth review of futurist

literature that reflects perceptions of the future regarding the economic, political, social, technological and environmental dimensions of the community of humankind. As described in the following sections of this paper, the foregoing future orientation is integrated with either occupational skills or traditional academic courses for intellectual development. It is important to note, both at this point and from the preceding Chart 2, that the role of the community college, with respect to Future Studies, is the development and integration of a personal relationship with the future, in essence the evaluation of alternatives for personal commitment. The role of subsequent professional development in colleges and universities is the development and refinement of skills and intellectual capacities necessary for mankind to exercise responsible control over his increasing ability to alter the natural processes of evolution. There are interesting implications for the public school system, but they are beyond the scope of this paper.

This is an important role for the community college, particularly if shifting demographic patterns and costs of higher education force a concentration of educational preparation and occupational upgrading at this level. This idea is accentuated in discussions with institutional research capabilities that indicate they can, at best, estimate that a given community college will sustain, at a given time, a maximum of 30 percent of its credit enrollment as former students who are enrolled in professional or occupational preparations at the universities.



SPHERICAL MAP
OF THE
INTERDISCIPLINARY RELATIONSHIPS
OF THE
CURRICULUM
CHART 3

It is suffice to say for the purpose of this paper that the "Spherical Map of the Interdisciplinary Relationships of the Curriculum" (Chart 3) is a dynamic approximation of the gene of Future Studies in the educational endeavor that ranges from ritual initiation to commencement. Both vertical and lateral thought processes are facilitated by the transactions inherent in this map. It is suggested that the establishment of futures relationships, via Futures Research and Future Studies, is the cell nucleus or key, the thought process that differentiates specialization or fragmentation from coordination and system balance. In essence, without the Future Studies

core you have a hollow sphere. The interdisciplinary relationships of the curriculum are perceived, by this writer, to have relationships to curriculum design, institutional organization an institutional economics.

Degree Plans With A Future Studies Orientation

THE ASSOCIATE OF ARTS DEGREE

A TRADITIONAL APPROACH

WITH A

FUTURE STUDIES ORIENTATION

Content Area	Credit Hours
1. Future Studies Courses	15
2. Core Courses	12
3. English	12
4. Mathematics	12
5. Natural Sciences	12
6. Physical Education	2
Total	65

A FUTURES ORIENTED

ASSOCIATE OF ARTS DEGREE

FOR

OCCUPATIONAL STUDENTS

Content Area	Credit Hours
1. Future Studies Courses	15
2. Core Courses	12
3. Survival Courses (Communications & Personal Planning)	14
4. Occupational Development Courses (Professional or Technical/Vocational)	24
Total	65 hours

Course Pools for Occupational Students

I. Future Studies
   1. Introduction to Future Studies
   2. The Future of Community Life
   3. Technology and the Future
   4. Environmental Future Studies
   5. Seminar on the Future of Energy Resources

15 hours

II. Core Courses
   1. United States History I
   2. United States History II
   3. Political Science I
   4. Political Science II

12 hours

III. Survival Skills
   1. Communications
      A. English I
      B. English II
      C. Technical Writing

6 hours

   2. Personal
      A. Introduction to Psychology
      B. Marriage and Family Life
      C. Psychology of Adjustment
      D. Educational and Career Planning
      E. Physical Education

8 hours

   3. Occupational Preparation.
      A. Professional
         1. Engineering
         2. Law
         3. Education
         4. Science
         5. Accounting
         6. Architecture
         7. Health Services Administration
         8. Management
         9. Law Enforcement
         10. Labor Studies
         11. Journalism

B. Technical/Vocational
   1. Electronics
   2. Computer Science
   3. Agriculture
   4. Drafting
   5. Health Occupations

C. Fine Arts
   1. Drama
   2. Art

Future Studies Course Descriptions

1. Introduction to Future Studies

   Personal futures. Focuses on hopes, fears and expectations that the student has for the future. Future Studies terminology and concepts are introduced.

2. The Future of Community Life

   A study of social organizations in rise and decline phases using life cycle analogies and biological metaphors. Readings include classical science fiction literature dealing with the organization of community life.

3. Technology and the Future

   An investigation of the future implications of the design, development and application of technology from the Cornucopian perspective.

4. Environmental Future Studies

   An investigation of the future implications created by the introduction of technology to ecological and cultural systems. Emphasis is on the Catastrophist school of thought.

5. Seminar on the Future of Energy Resources

Introduction to the concepts of future energy resource systems and their implications for community organization and personal lifestyles. Practice in writing scenarios.

Prerequisites: (1) The Future of Community Life
(2) Technology and the Future
(3) Environmental Future Studies

It is important to reiterate and again make the point that a course constituted as a base in Future Studies, at the community college level, is taught from a perspective of interdependent systems, with value meaningful criteria based upon the principles of Futures Research methodology.

This is contrasted with a "futurized" course which is perceived, by reason of its emergence from a specialized discipline, to be based upon the principles and values of scientific research and is nomothetic (one view) in its assignment of value for evaluation of future contingency purposes. In essence, it is expected that a "futurized" course will advocate or represent the value system of the discipline from which it emerges. If it does not, then the student should legitimately question the relevance and possible entrophication of a self-depreciating discipline. If a course is not "futurized" the student might also legitimately question its relevance and worthiness of his personal commitment. It is conceivable that this may be a factor in addressing the "drop-out" question.

This disciplinary relationship to the future is as important to the Future Studies concept as ethnic identity is to the society as a whole. In essence, the Future Studies concept at the community college may represent an approximation, in a microcosmic sense, of the global village. A Future Studies curricula may enable a conceptual simulation of the "sense of community" being experiences in "real time." For the community college faculty this affords exciting new views and relationships for their subject area. The exciting prospect of personal intellectual stimulation previously afforded to only the "Think Tank" concept is also a prospect. The instructional possibilities are enriching for all concerned.

The Future Studies orientation does not advocate, rather it illustrates alternatives that the student evaluates in terms of potential personal consequences. Futurization advocates.

This author believes that Future Studies, as an appropriate technology discipline, is necessary as an alternative to the imperatives of science and technology. It is the discipline that enables freedom of choice.

Continuing Education Considerations

In the community college, Future Studies is integral to the vital role of Continuing Education from both the vocational as well as the avocational perspectives. As corporate organizations grow more complex in their need to respond to community and environmental concerns, their

need for Future Studies expertise with Group Methods and Forecasting skills, in the context of local community familiarity, is likely to increase. It is visualized that local industry and business personnel can benefit from learning Futures Forecasting methodology and values on a Continuing Education basis.

Avocationally, the results of futures oriented community research projects reflecting growth, development, social problems, etc., may have a corporate interest with respect to policymaking and public relations. In all probability, individual and collective citizens can benefit from a range of Continuing Education futures endeavors that include intellectually-oriented futures literature discussion clubs, community organization development and community project development.

Continuing Education Courses/Services Descriptions Using Future Studies Skills

1. Organization Development in the Community

   A training/consulting service designed to develop or facilitate management, supervisory and training capabilities needed by business/industry or community organizations in the college service area. Emphasis on group processes, goal and objective setting, team building and development of training requirements and delivery.

2. Community Development Studies Seminar

   An informational program designed to disseminate the results of community Futures Research. Includes planning, development and budgeting models.

3. Project Development in the Community

A "Management of the Future" program that stresses methods of planning, programming, budgeting, proposal development and public relations for community organizations.

4. Seminars on Community Lifestyles

Special topics designed to illustrate the many ways to live, cope and have fun in the future. Discussions include how to design a future for oneself.

It must be acknowledged that many of these concepts are already successful enterprises in the Continuing Education programs of some institutions.

Instructional Staff Development

Conceptually, the thrust of a Future Studies orientation for the community college is directed at the notion of staff development. Students might very well be considered as persons who staff, or will staff, the maintenance, operational, engineering, clerical, administrative, professional and decision-making positions of the community and its organizational network. If Future Studies is to have its maximum impact upon the student and ultimately the community, then Future Studies should be reinforced by the futurization of the entire curriculum. Naturally, it is expected that faculty members will participate in futurizing their courses only to the extent that they personally feel the need or appropriateness to [illegible] To facilitate this participation there are no fewer than ten (10) processes,

(Bell and Mau, 1971), not counting voluntary cooperation in interdisciplinary programs or forums. It should be expected that the Future Studies faculty will participate in this sensitive area of institutional development by functioning as an internal consultant.

Futures Research, Forecasting and Development of Institutional Strategies (The Internal Consultant)

Higher education, the community college system included, is generally agreed to be facing multiple crises. Responses to these perceptions vary from budget tightening, to recruiting campaigns, retrenchment programs and planning mechanics. Many times these measures are characterized by the collective construction and application of conventional wisdom. Tacitly associated with each of these processes is an individual or collective image of not what the future is to be for an institution or program, but what the institution will be in a chaotic environment. The result is a self-fulfilling prophecy of entrophy not unlike the failure of will attributed to the Greeks when they consented to Persian rule without losing their war with the Persians. It becomes a question of a dynamic response to the future as contrasted to a resignation to conditions. This attitude may even be translating into the student body and subsequently, into the society-at-large. It is a case of institutional body-language and its cultural ramifications.

Shoring institutional efforts at planned responses to changing conditions are internal managers with specialized contemporary skills and

external consultants with often expensive credentials. All too rarely is the perspective of faculty, with a sometimes different consciousness perspective, taken into account. Notably absent from these institutional efforts to cope with the future is a Futures Study perspective incorporating the three basic processes of Futures Research, i.e., (1) rational-analytical methods, (2) group methods and (3) visionary methods (including the use of lateral thinking).

It is suggested that local consultation, an internal consultant with futures training and familiarity with local and internal conditions, might well justify itself. . . even if used only occasionally.

Future Studies Funding Consideration in the Community College

Future Studies and its four objectives (teaching, coordinating, generating and disseminating) are viewed, by this author, in the context of a primary and tenurable teaching assignment and a secondary role as an internal consultant and community services "technician." As such, a "Future Studies Faculty" assignment, as a function of a social science curriculum, is as important an identification as Political Science, Psychology, History, Science, Literature, Management or Technology. It is important to note that depending upon the background of interdisciplinary training possessed by the Future Studies teacher, it is possible that he/she could teach courses or function in any one of several areas of interest on an occasional basis. The Future Studies teacher then functions as a model

of transferable skills. It is conceivable then, within the context of what constitutes an institution of learning, that funding may become a matter of institutional commitment to the concept and value, to society, of Future Studies as a way of thinking. As a model of flexibility it is suggested that the instructional delivery system integrated with the Future Studies concept might also serve to explore the implications of various organizational and economic configurations. In essence, Future Studies becomes a laboratory concept with the institution and the Future Studies endeavor becoming an experimental laboratory. This is consistent with the view held by many that the community college should be generating new strategies for the future.

Future Studies is visualized as functioning economically on a system of institutional commitment, contact hour funding and grants. Institutional commitment and contact hour reimbursement are functions of taxation and the local administrative processes and as such maintain and support the Future Studies ideology. Grant funding is expected to exclusively support student experiences of interdisciplinary activities, i.e., field trips, guest speakers, student projects and materials.

Contact hour reimbursement structures and computation would not change just because a given course was "futurized." In the instance of the creation of the five courses proposed as the bases of Future Studies in a social science curriculum, the following courses (Coordinating Board

of the State of Texas) are approved for community college offerings. They are presented in a comparative context and for discipline appropriateness.

Future Studies Recommended	Coordinating Board Designation
1. Introduction to Future Studies	1. --
2. The Future of Community Life	2. Contemporary Social Problems #220802
3. Technology and the Future	3. a) Science and Contemporary Social Problems #19013 b) Man in a Technological World #10032
4. Environmental Future Studies	4. Environmental Science #191408
5. Seminar on the Future of Energy Resources	5. Energy Resources #190102

An appropriate instructional delivery system design, supported with a pro-forma budget analysis and plan for integrating Future Studies into the institutional environment, should be undertaken. This design should reflect the fiscal realities of the institution considering the adoption of the Future Studies concept; and the institution should understand that it will be the role of the Future Studies function to counsel and facilitate alternatives to the institutional condition that it finds.

Summary

Future Studies, as an academic endeavor, has a scant history of some 20 years. Noting mixed acceptance in the academic community, the

development of two competing ideological camps, and concern with the onslaught of urbanization and energy problems, Richard Henshel of the University of Western Ontario, observes (Chronicle of Higher Education, October 14, 1980) that academic futurists, with their marginal respectability of today, have the status of the social scientist in the late nineteenth century. Mr. Henshel noted that the first department of sociology was established in 1893 at the University of Chicago, almost 60 years after social philosophers first called for the scientific study of society. Suggesting that the evolution of controversial disciplines may be a long process, Mr. Hershel noted that Future Studies seems to be progressing relatively rapidly. The concept of Future Studies proposed in this paper, based upon the concept of appropriate technology, is unique in the field. Its development and integration into the community college ecological system will take some time. Perhaps two to five years in any given institution, longer in others, will be required to fully integrate the total idea. Yet, that seems like a small tithe to pay given its potential as a transformational agent, assisting the transition from an Industrial Society to a Post-Industrial Society. Of course, the level of commitment to this endeavor will determine the outcome.

Edward S. Cornish, president of the World Future Society, has expressed concern with the general prestige of the field within higher education (Chronicle of Higher Education, October 14, 1980). Noting that progress has been made in the use of Future Studies in government and

industry, Mr. Cornish seemed to feel that, in general, people sense that the future is important. He further observed that in a new field, such as Future Studies, "academia is not an innovator." He said, "When a field reaches a certain maturity, the acadmics begin to move into the field," further noting that "academia has to follow rather than be in the forefront."

From the scope of Future Studies activities and possibilities identified in this paper it seems that the field has achieved a level of maturity that warrants further academic interest, particularly from the community college sector. It is obvious from Chart 1 (page 16) of this paper that, in terms of the community college, a deep consideration of the integration of Future Studies and futurized courses into the curriculum is timely. Community colleges in California, Florida and Texas have taken the leadership in the introduction of Future Studies courses to their curriculum. The funding mechanics and philosophy seems to be basically in place for its establishment as a social sciences curriculum.

With the potential for the development of social responsibility in terms of personal commitments, appropriate technology and community awareness of its futures, the community college faculty has, in the total Future Studies concept, a model for social invention that can enhance the survivability, staying power and development of the human race on this planet and throughout the universe. This potential is amplified by the identification and reinforcement of the concept of transferable knowledge and skill.

What must be resisted is an attitude of "not invented here" for it is the whole institution, excited by its individual elements and in turn exciting the elements, that constitutes the invention itself.

By considering its own environment as the laboratory, the community college faculty has the opportunity to participate in the development and refinement of perhaps the most important academic endeavor in history. . . the transformation from centralized to decentralized acceptance of social responsibility for the technological capability to control evolution itself. . . the God Factor.

One admonishment, the Future Studies concept is like an automobile. . . it is needed, but if you don't know where you want to go with it, then you should stay off the road because it takes a lot of energy; but if enough people want to go in the same direction then they should get together.

The task is the splicing together of the past, the present and the future for response to educational needs, community needs and institutional needs. As Markley, (1975), has stated, "the central function of Future Studies is that of human development and self-regulation rather than bureaucratic efficiency and centralized influence."

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